

WHAT IS CLAIMED IS:

1. A cable modem apparatus connected to a network system through a cable, comprising:

5 an interface configured to transmit and receive a data signal transported through said cable based on set frequency data;

10 a memory configured to store a frequency table for selecting a frequency matching the frequency of said data signal transmitted through said cable and having a cache area for saving frequency data which has been selected previously from said frequency table;

15 setting means configured to select matching frequency data from said cache area or said frequency table in said memory at start of communication to set said selected frequency data in said interface; and

20 saving means configured to save information indicative of frequency data in said cache area when said frequency data selected from said frequency table is matching.

25 2. The cable modem apparatus according to claim 1, wherein said setting means selects frequency data with priority in accordance with the information saved in said cache area, and when it is determined that said frequency data is not matching, said setting means sequentially searches said frequency table for matching frequency data.

3. The cable modem apparatus according to claim 1,

wherein said setting means selects frequency data with priority in accordance with the information saved in said cache area, and when it is determined that said frequency data is not matching, said setting means

5 sequentially searches said frequency data for matching frequency data and determines at predetermined intervals whether or not frequency data in accordance with the information saved in said cache area is matching.

10 4. The cable modem apparatus according to claim 1, wherein said setting means sequentially searches said cache area for matching frequency data and determines at predetermined intervals whether said frequency data stored in said frequency table is matching.

15 5. A method of setting a frequency applied to a cable modem apparatus connected to a network system through a cable, said cable modem apparatus comprising an interface configured to transmit and receive a data signal based on set frequency data, and a memory configured to store a frequency table for selecting a frequency matching the frequency of said data signal transmitted through said cable and having a cache area for saving frequency data which has been selected previously from said frequency table, said method comprising the steps of:

20 selecting frequency data with priority from said cache area of said memory at start of communication;

sequentially selecting frequency data from said frequency table to find matching frequency data when said frequency data selected from said cache area is not matching; and

5        selecting matching frequency data from said cache area or said frequency table to set said selected data in said interface.

6.        The method according to claim 5, wherein frequency data is selected with priority in accordance 10 with the information saved in said cache area, and when it is determined that said frequency data is not matching, said frequency table is sequentially searched for matching frequency data and determination is made at predetermined intervals whether frequency data saved 15 in said cache area is matching.

7.        The method according to claim 5, wherein said cache area is sequentially searched for matching frequency data and determination is made at predetermined intervals whether or not frequency data 20 stored in said frequency table is matching.

8.        A method of setting a frequency applied to a cable modem apparatus connected to a network system through a cable, said cable modem apparatus comprising an interface configured to transmit and receive a data 25 signal based on set frequency data, and a memory configured to store a frequency table for selecting a frequency matching the frequency of said data signal

transmitted through said cable and having a cache area for saving frequency data which has been selected previously from said frequency table, said method comprising the steps of:

- 5        searching said cache area of said memory at start of communication, and when frequency data is stored in said cache area, setting said frequency data stored in said cache area in said interface, and when no frequency data is stored in said cache area, setting matching frequency data from said frequency table in said interface; and
- 10        when a data signal is successfully captured in said interface, saving said frequency data in said cache area.